ABSTRACT

A weighted round-robin arbitrator for a plurality of data queue includes an arbitration table comprising a plurality of entries. Each entry represents a time slot for the transmission of one data packet from a selected one of the plurality of data queues. There is one arbitration logic circuit for each of the plurality of entries in the arbitration table. Each arbitration logic circuit includes a first multiplexer receiving an output from a first table entry and an output from a second table entry in the arbitration table. A second multiplexer receives empty flags from each of the data queues, the flags indicating that there is no data to the sent from that queue. An output of the second multiplexer is coupled to a control input of the first multiplexer so that the first table entry value is output from the first multiplexer if the corresponding queue has data to be sent out and the second table entry value is sent out from the first multiplexer if the queue corresponding to that table entry has data to be sent out and the queue corresponding to the first entry has no data to be sent out.